

# Environment, society and the state in southwestern Eritrea

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## INTRODUCTION

Scholarly works on Eritrea have focused on the evolution of Eritrean nationalism and the protracted liberation struggle that culminated in 1991 enabling Eritrea to gain its independence (Cliffe and Davidson, 1988; Markakis, 1988; Pateman, 1990; Sorenson, 1991; Iyob, 1995). Some writers have chronicled the conflict between the Eritrean liberation fronts and the Ethiopian army (Connell, 1993; Davidson and Cliffe, 1980; Pool, 1979) in an attempt to capture the human consequences of the war. There have been few studies on the effects of the war on the environment in Eritrea (Free, 1991; W.Giorgis, 1993; Zegeye, 1994). Post-independence writings on the country have emphasised the issue of national reconstruction and development (Doornbos and Tesfai, 1999; Yohannes, 1995). Reports on repatriation of refugees and the demobilisation of ex-fighters (Moussa, 1995; W/Giorgis, 1999) have dominated the nation building and development discourse. The relationship between environment, development and society has been a neglected subject in these accounts.

This paper addresses the relationships between environment, society and the state (the promoter of development activities) in the Gash-Setit region of western Eritrea.<sup>1</sup> (Refer to the map in appendix-1). Through an examination of the discourse of the local populations and the state about the environment, the paper explores the different factors that have contributed to the environmental crisis in the region. The analysis that follows incorporates historical, cultural and political dimensions to the understanding of the relationship between environment, society and the state.

## THE GASH-SETIT REGION: AN OVERVIEW

The area that is known as Gash-Setit has been named differently under different administrative regimes.<sup>2</sup> During the initial period of the Italian colonial rule, it constituted as part of what the Italians referred to as the commissariat of Barka. Later the region became a full-fledged commissariat taking the designation of Gash-Setit. Both the British and the Imperial Ethiopian administrations maintained this name although the former referred to the area by the generic designation western lowlands, which included territories from Senhit, Barka and Gash-Setit. Under the present Eritrean government administration, the region is combined with former Barka and some parts from former Hamasien and Seraye districts. The area, largest of all the administrative zones of the country, has been renamed as Gash-Barka after a restructuring that took place in 1995.<sup>3</sup> (See the map in appendix-2).

The Gash-Setit region is located in the western lowlands of Eritrea. The size of the area is estimated to be 21,810 square kilometres. Estimated population of the region is 282, 996 with a population density of 13 persons per square kilometre. The altitude ranges roughly between 600-1500 meters above sea level. The average annual rainfall in the region is between 300-600 millimetres. The temperature ranges between 18-25 degrees Celsius. The region produces staple crops like sorghum, millet, maize and beans. Cash crops such as cotton and sesame are also cultivated in the area. The Gash-Setit region produces a variety of fruits like banana, orange, tomatoes and vegetables. The presence of river Gash and Setit makes irrigation agriculture

promising in the region. The predominant vegetation in the area includes a variety of acacia trees, deciduous woodland and different grass species. The main species of plants in the zone are *ziziphus spina-christi*, desert dates (*balanite aegyptiaca*), baobab (*adansonia digitata*), doum palm (*hyphaene thebaica*) and tamarind (*tamarindus indica*) tree, among others. The region also is a habitat to a variety of animal species such as elephants, baboons, velvet monkeys, gazelles, antelopes and different kinds of birds and reptiles.

The ethno-linguistic composition of the region has been diverse and complex. In the past ethnic groups such as the Kunama, Nara and Beni-Amer have predominantly inhabited the area. The discussion in this paper focuses on the Kunama people. The Kunama and Nara belong to Nilo-Saharan language family. The Beni-Amer is a Cushitic-speaking people. In recent times members of other Eritrean ethnic groups such as the Saho and Tigrinnya have settled in the region. These communities have been mainly attracted by the availability and fertility of the land and other economic opportunities.<sup>4</sup> Each of the indigenous groups (i.e. the Kunama, Nara and the Beni-Amer) had a specific territory that is recognised by tradition. The Kunama people refer to the land they inhabit as *Kunamalaga*, which means Kunamaland. Reflecting their matrilineal societal organisation, they also refer to it as *afa laga*, which means the land of the maternal grandmother. Territories that are located adjacent to river Gash and Setit belong to the Kunama traditionally. The Beni-Amer often grazed their livestock in these localities. Their intermingling with the Kunama of Sokodas has facilitated the settlement of the Beni-Amer in some Kunama villages in the region.

The Kunama society is organised along matriclan and matrilineage line. The different lineages constituting a clan own land. Individuals who do not belong to the lineage or clan also can use the land on usufructory basis. The land cannot be sold or purchased. There are many clans in the Kunama society. These clans include *kara*, *nataka*, *serma*, *jula*, *sogona*, *lakka*, *akartakara*, *alaka* and *shila*, among others. The number of clans differs from one region to another. Some regions probably because of the extent of population intermixing have more clans than others. Each clan owns land that is collectively used by clan members. This ownership of land has been misunderstood by outsiders who often conceive the Kunama as lacking a concept of ownership of land. The Kunama believe that from the very beginning, each clan had its own land. Historically, clan members probably claimed land on “first-come” basis. There was also a tradition that allowed clan members to acquire land that belonged to another clan. For example, if a lion or other animals kill a person, the kinsmen of the deceased individual would claim the area where the person was killed. Lands that are acquired in this way are referred to as *kokoba laga*, which means “blood land.”

The inhabitants of the Gash-Setit area are characterised by different socio-economic organisations. The Kunama and the Nara are settled agricultural people while the Beni-Amer are mostly nomadic pastoral communities keeping cattle, camels, sheep and goats. However, some clans among the Beni-Amer such as the *ad towas*, *ad bekhit*, *ad taule* and *ad sala* also engage in agriculture. Religious affiliation wise, the Kunama adheres to Christianity and traditional belief system with some Moslem followers, whereas the other ethnic groups follow Islam.

Traditionally, the populations of the region also differed in their social and political organisations. The Kunama has been a unique group in Eritrea representing typical African elements both in physical structure and cultural complex. As hinted earlier, they are a matrilineal group reckoning their descent and inheritance through the mother line.<sup>5</sup> In contrast, the Nara and the Beni-Amer are patrilineal groups tracing their kinship through the father line. In the past, the Nara may have been a matrilineal group, but with their conversion to Islam they have adopted the patrilineal system. The Kunama had a democratic and egalitarian political organisation. They represent what anthropologists refer to as the uncentralised or acephalous political system. Indeed, the acephalous nature of the traditional Kunama political structure hindered the development of strong chieftainships during the period of the Italian colonial administration. A hierarchical and aristocratic political organisation characterised the Beni-Amer people (Nadel, 1945). The Beni-Amer was divided into aristocratic class and serfs known as *nabtab* and *tigre* respectively. The paramount chief within the aristocracy is referred to as *diglel*.

Visualising these inhabitants of the Gash-Setit region in terms of ethno-linguistic categories should not give readers an impression of these societies as bounded entities. To the contrary, these communities have historically intermixed with one another. As a result of these intermingling among the various populations in the region, there has been also a considerable borrowing in terms of language and culture. The oral history of clans and lineages among the different groups reflect the extent of the intermixing of societies in the region. The mixing has produced today communities that are different in some respects from the parent populations. This poses certain identity problems for the members of the societies. Moreover, it is difficult to classify these populations in terms of the existing ethno-linguistic categories. There has been a mistaken tendency to view these groups as constituting independent ethnic groups. The Bitama and Ilit are cases in point. The Bitama and Ilit are two Kunama tribal groupings who have intermarried with the Beni-Amer, and converted themselves to Islam. It appears that the Kunama cultural elements among the Bitama has greatly faded whereas one could observe such elements more among the Ilit who still speak a Kunama dialect.

The societies that inhabited the Gash-Setit region have been also at odds with one another. Their differences in the mode of livelihood and political allegiance to forces across the frontiers into Abyssinia and Sudan had brought about clashes among the communities. The nomadic pastoral groups often clashed with the settled agricultural people over grazing land and water. There were raids and counter-raids (particularly between the Kunama and the Beni-Amer in the past or Kunama versus a coalition of the Beni-Amer and the Nara in more recent times) prior to the advent of the Italian colonial rule in Eritrea. The Italian colonial administration (1890-1941) resulted in a relative peace and stability for the societies. The Kunama remember the Italian colonial period with a sense of nostalgia and romanticism rating the Italian colonial government as the most favourable compared to subsequent regimes.

The hostile relationships among the populations were more pronounced during the period of the British administration (1941-1952). The raids of the bandits from Tigray region of Ethiopia also exacerbated inter-community relations during this

period. During this time, the Beni-Amer in collaboration with the Nara attacked the Kunama and looted their cattle. The Kunama organised a counter-movement and eventually they were able to drive the Beni-Amer and Nara out. The Kunama fought using old guns that the Italians left behind when the British defeated them in 1941. In the collective memory of the Kunama, the tribal fightings during the British period are often referred to by the phrase “*salab biayi masa*.” The exact meaning of this phrase remains obscure, but it reflects the killings during these tribal fightings.

The beginning of the liberation struggle in the early 1960s in Eritrea has exacerbated the relations between the Kunama and other ethnic groups in the Gash-Setit region.<sup>6</sup> The Eritrean Liberation Front (ELF) whose leadership was dominated by the Beni-Amer, Tigre and to a lesser extent the Nara, mistreated the Kunama people from the very outset by burning their villages and killing community elders in some localities.<sup>7</sup> These activities alienated the Kunama people. For their survival, the Kunama had to seek support from Ethiopia, which enabled them to resist the Eritrean liberation fronts almost until the final years of the struggle period. This should not be interpreted as if there were no individual Kunamas within the liberation fronts. There were a considerable number in the ELF. Many Kunama from regions such as Ilit and Sokodas joined the ELF from the very beginning of the movement. Similarly, there were some in the Eritrean People's Liberation Front (EPLF). The number of Kunama in the EPLF increased substantially in the late 1980s.

These legacies of animosity among the societies in the area continue to prevail in post-independence Eritrea albeit in muted forms. In addition, recent developments have brought about new demographic configurations and environmental stresses in the region.<sup>8</sup> There has been an alarming influx of populations from highland Eritrea into the Gash-Setit area. The region has experienced a mushrooming of new settlements of returnees (i.e. repatriated refugees) from Sudan. The state of Eritrea has opted for a high-modernist agricultural development policy that inherently favours the establishment of large scale agricultural schemes.<sup>9</sup> A significant number of communities who have been expelled from Tigray and other regions of Ethiopia after the outbreak of the Ethio-Eritrean conflict in 1998 have settled in the region. These developments have profound impacts on the environment and the communities in the area.

## **DISCOURSE ON ENVIRONMENT**

Environmental discourse has not been exclusively a subject of concern to scholars and environmentalist groups in the developed world. The local populations in the developing countries also have been articulating their views regarding environment and their relationships to it. Anthropological studies on local resource management reflect such views of the local societies about their environment (van den Breemer and *et al.*, 1995; Long, 1989; Brokensha and Little, 1988; Horowitz and Painter, 1986; Brokensha and *et al.*, 1980). The presentation of these studies in printed forms to the



scientific community though has given anthropologists an upper hand in the ownership of the views of the indigenous communities.

The inhabitants of Gash-Setit articulate discourses about their environment. Such narratives have indicated the environmental crisis, which is manifested in different forms. The crisis has revealed itself not only in the erosion of soil, but also in the vanishing of plants. In the opinion of the local population, these plants were in abundance two or three decades ago in the region.<sup>10</sup> For example, elders among the Kunama are quick to point out the plants that have vanished from the area and those that are on the verge of extinction. Among the endangered plants include the doum palm and the baobab tree. Another tree those informants often mentioned of its widespread presence in the past, but now on the verge of disappearance is the incense tree.

The environmental crisis in the region has been also witnessed in the disappearance of a variety of animals, which according to the local communities were present, some decades ago. Oral historical sources among the Kunama suggest of the prevalence of animals such as giraffes, rhinos, lions and elephants in the Gash-Setit area.<sup>11</sup> In the past the Kunama used to make shields from the hides of giraffes and rhinos. Among the Kunama elders have also reported that elephants, which were so abundant in the region, are disappearing.

The environmental stress in the Gash-Setit area has been also manifested in the drying out of water sources. Rivers and wells that not so long ago provided water for the local populations and their animals in the different villages in the region have dried out. Many of the women informants whom I have interviewed during the fieldwork have repeatedly reported about the drying out of rivers and wells. Like in many traditional societies in Africa, the fetching of water is a task that is assigned to women in the Kunama society.

The State of Eritrea has been aware of the environmental crisis in the Gash-Setit region as well as in other areas of the country. This awareness has prompted the government to come up with a blue print known as the National Environmental Management Plan for Eritrea (NEMP-E) in 1995. The document identifies a host of environmental problems in the country. The problems that are identified for the Gash-Setit region are: clearing of woodland for farming, cutting of trees for firewood, destruction of woodland by fire, and cutting of trees for building houses for the returnees from Sudan. The Eritrean Constitution has a provision regarding the protection of the environment. Article 8, sub-article 3 of the already ratified but as yet unimplemented Eritrean Constitution states that the state will be responsible for creating the right conditions for the participation of the people in safeguarding the environment.

## CONTRIBUTING FACTORS

Several factors have been contributing to the environmental crisis in the region. These factors are population settlements, large-scale agriculture, war, drought and the disintegration of the traditional management of the environment. Both the discourses of the local populations and the state on the environment recognise some of these

factors for their contribution to the problems. The local narratives appear to focus on the disintegration of the traditional customs as a factor for the environmental crisis. A historical approach to the analysis of these factors enables us to explore the complexity of not only environment and society dynamic, but also state-society and inter-community interactions.

There have been population settlements in the region from other parts of Eritrea. A considerable number of communities from the former Hamasien and Seraye regions of highland Eritrea have settled in the area. People from northwestern and southwestern Hamasien migrated to the Gash-Setit region. Villages in Hamasien such as Deda, Habela, Liban, Dekk'i Shahai and Melezanai have been abandoned as a result of such migrations (Kibreab, 1996). Likewise, the people from western and southern Seraye have migrated to the area. The migration of people from highland Eritrea took place in the 1950s and 1960s. The availability and fertility of the land, population pressure and excessive land degradation in their original localities have motivated these populations to migrate. Feuds among families and lineages have also forced individuals to migrate. Although demographic pressure and land deterioration was among the factors that forced these people to migrate, there were also other factors, which facilitated their movement. The presence of individuals from these regions in the Gash-Setit district administration such as for example, colonel Gebrek'al Debesay has facilitated the migration of populations from Dekk'i Shahai region. The settlement of the Saho in Karkon in the 1950s was facilitated by the presence of a Saho man in the Barka administration at that time. Their hostile relations with the Tsena deglel people in the former Akeleguzai district may have also caused the migration of the Saho.

In the late 1950s and early 1960s there was population migration not only within Eritrea, but also movement of people from Eritrea to other parts of Ethiopia. The urban population in highland Eritrea tended to migrate to Ethiopia in search of employment opportunities. The people in the countryside migrated to places such as Gash-Setit. The migrants within Eritrea have established settlements in Boshoka, Shambakko, Ugaro, Badumma and Dokimbia, among others. In the past these places were entirely Kunama settlements, but in recent times the Kunama have been outnumbered by the settler population. Their migration into the region has resulted in the destruction of several Kunama villages located in the vicinity of the present-day Badumma. The inter-ethnic fightings that occurred during the period of the British administration caused the destruction of the villages. During this period bandits from Shire Indasellasiye region of Tigray raided these Kunama villages. The migrations into the Gash-Setit region during post-independence Eritrea have been encouraged by the Land Proclamation No. 58/1994, which made all lands under state ownership. According to the Proclamation, person over 18 years of age could claim land in the area. Thus, the local people cannot enforce their previous clan-based ownership of land. This applies not only in the case of the Kunama, but also for all other groups of the country.

A majority of the returnee populations from Sudan have settled in the Gash-Setit region. They have settled in places such as Fanko, Tabaldia, Guluj and Alabu. (Refer to the table in appendix-3). The returnees are from diverse ethnic groups such as Tigrinnya, Tigre, Beni-Amer, Nara, Saho, Bilin and a few Kunama. Only a negligible number of the total refugee population has been repatriated. The repatriation of

refugees has been halted by the political developments between the Sudanese and the Eritrean government in the last four or five years. It is likely that the settlement of returnees would continue to take place in the region in the future unless there is a shift in the policy of the government. Indeed, the repatriation of Eritrean refugees from Sudan, which is carried out through a tri-partite agreement between the Governments of Sudan and Eritrea with UNHCR, started on 25 July 2000.

The Gash-Setit region also has settlements of demobilised ex-fighters. These ex-combatants have settled predominantly in Alighidir near the town of Tessenei. (See the table in appendix-4). In 1993, the State of Eritrea decided to reduce the number of the liberation army. Both security and economic considerations were taken into account in demobilising the ex-fighters. The government felt that since Eritrea was at peace with its neighbouring countries such as Ethiopia, there was no need to have a large army. Moreover, the regime felt that maintaining a large army would take a considerable amount of its financial resources. On the basis of these rationales, the government demobilised about 54,000 ex-combatants (out of a total of 95,000 fighters) between 1993 and 1995 (W/Giorgis, 1999:61).

The availability of land in the area has encouraged both in the past and at present the development of large-scale commercial agriculture, which has a considerable effect on the environment. During the Italian colonial period, areas in the Gash-Setit region were converted into state lands known as *terre demaniali*. Thus colonial land decrees that were proclaimed in 1909 and 1926 were the basis for the expropriation of the agricultural and pastureland in the region. The Italians established plantations in the 1920s. A lot of trees and shrubs have been cut to establish the plantations. An attitude that conceived the local communities as lacking a sense of private ownership of land has inspired the Italians to take the land for establishing such farms. From the point of view of the Italians, the Gash-Setit region was a *terra nullius*. The clan-based ownership of land among the Kunama was entirely ignored and misunderstood. The Italians also considered the indigenous populations as incapable of effectively utilising their land. In any case, they established a number of large agricultural schemes in the area such as the Alighidir Cotton Plantation.<sup>12</sup> The farms produced mainly cotton, citrus fruits, banana and tomatoes. Large-scale agriculture declined during the period of the British administration and the subsequent Ethiopian regimes because of the political instability in the area. The Alighidir Estate and many other smaller farms ceased to function in the late 1960s and early 1970s due to such political turmoil.

Political stability in post-independence Eritrea (at least until the outbreak of the recent conflict between Eritrea and Ethiopia) has created favourable grounds for the development of large-scale farms in the Gash-Setit region. A substantial area of land has been cultivated in the Alighidir Estate and other plantations in the Gash-Barka administrative area. (Refer to the table in appendix-5 and appendix-6). The State of Eritrea has charted out policy guidelines in a document known as the Macro Policy for a high-modernist agricultural development in the country:

The agricultural sector is by far the most important provider of livelihood to the majority of the population. However, its contribution to GDP is small. This is

because productivity in the sector is low. Agricultural productivity in Eritrea has historically been low as the sector is predominantly characterised by traditional, rain-fed, subsistence farming with little use of modern agricultural inputs such as fertilisers, and human and/or animal power are the principal sources of traction.

The economic drive for the promotion of such large-scale agriculture has been the idea of food self-sufficiency. The discourse of food self-sufficiency in present-day Eritrea must be seen in the context of the legacy of past history. It should be recalled that in the past Eritrea's status as a sovereign country has been denied on the basis of the argument that the country is not economically viable.<sup>13</sup> The United Nations Commission (1950:13) had the following to say regarding the economic unviability of Eritrea:

It is apparent that Eritrea is an inherently poor agricultural country. It is short of water, and short of cultivable land where there is water. As a result, an average of only 250 lbs. of cereals and legumes are produced yearly per rural dweller, with an average per capita holding of 1.5 cattle and 2.5 goats. ...As 78 per cent of Eritrea's population subsists on farming, the effect of its low productivity on the economy of Eritrea as a whole is obvious, both now and in the future, since no large-scale alternative form of employment exists.

This argument has emphasised that Eritrea cannot be self-sufficient in terms of food. The current tendency to view the Gash-Barka region as a breadbasket of the country is a counter construct to the past discourses of economic unviability of Eritrea.

The Land Proclamation has encouraged large-scale agriculture in the Gash-Setit region. Provisions such as (1) the state is the ultimate owner of the land; (2) individuals and business organisations can lease land for commercial development; and (3) the state has the right to expropriate land for national development by paying compensation to the owners for the property built on the land; have encouraged the expropriation of lands from the local populations.<sup>14</sup> The Eritrean Constitution also enshrines these provisions. Article 23, sub-article 2 of the Constitution of Eritrea states that all lands belong to the state reinforcing the above-listed mentioned provisions of the Land Proclamation.

An attitude that views the local communities in the region as backward and incapable of effective utilisation of the land has guided the state to promote the large-scale commercial agriculture. This attitude is similar to the colonial notion of "civilising mission". The idea has certain implications concerning the relationship of the local people with the state and individual plantation owners. The notion puts the state and the concession owners in a paternalistic and patronising status. Orchestrating their justification in terms of the "civilising-cum-development mission" the state and these individuals often encourages activities that have detrimental consequences on the local communities.

The state also has been influenced by the notion that the Gash-Setit region is the breadbasket of the country. This is the belief that due to the availability and fertility of the land, the area is suitable for producing food for domestic consumption.<sup>15</sup> The

idea has been recently orchestrated more openly by the regional administration. In 1999 the Gash-Barka administration has organised a festival in Barentu, the capital town of the area. Among the objectives of this festival was to show to Eritreans from other administrative regions about the potentials in natural resources including agriculture. To this end, the administration displayed a variety of crops that grow in the area. Regarding the agricultural potentials of the region, the administrator of Gash-Barka region, Mr. Mustafa Nurhussen remarked:

With respect to economy, we have been trying to make not only this region self-sufficient, but also to supply the whole country with food. It would not be an exaggeration to say that the Gash-Barka area supplies the entire country with banana, tomatoes, and other fruits. The region also produces cash crops such as cotton and sesame. Last year the region has produced about 2 million quintals of crops. In the future, we have the plan to develop areas along the riverbanks of Gash and Setit into big farms although this will require a lot of investment.<sup>16</sup>

Similarly, the rich faunas of the region were exhibited. By way of encouraging population settlements in the area, the administration hailed about the ethnic and cultural diversity. It was declared that members from all the ethnic groups of the country except the Afar inhabit the Gash-Barka region. Thus, a potentially conflictual situation of the area was presented as if it were a Swiss-like case of pacific coexistence of different nationalities. Be that as it may, it appears that the festival was an invitation to individual investors to promote large-scale commercial agriculture in the area.

The prolonged war of liberation in Eritrea has affected the environment in the Gash-Setit region. As mentioned earlier, several studies have reported the impact of the war on the environment in Eritrea (Free, 1991; FAO, 1993; W. Giorgis, 1993; Zegeye, 1994). The political instability in the area prior to independence did not allow researchers to conduct village-level case studies of the effects of the war on the environment. Such studies could have explored whether some localities were exposed to environmental crisis more than others were. Moreover, they could have further investigated the region-specific analysis of the situation.

The region has experienced periodic droughts in the 1970s and 1980s, which have affected the vegetation cover in the area (Gebremedhin, 1996:106). A study (Lewis and Berry, 1988:69) has reported that Eastern Africa in general has experienced several major droughts in the last half a century. Informants from among the local communities have pointed out that several varieties of plants and grasses have vanished from the region because of the droughts. The droughts also have brought about shortage of water in the area. At times, the droughts had resulted in famine in the society. The area has different kinds of fruits or roots of plants, which the local populations use them as food during famine times. The fruits of the doum palm, baobab and *ziziphus spina-christi*, among others are used as diets. The leaves of the baobab and the desert date trees are also used for making food and soup. The environmental crisis that the region has experienced has been a threat to the survival of these plants.

The discourse on the environment among the Kunama has attributed the environmental crisis to the disintegration of the customary management of the environment. The traditional attitude of the society towards the environment was a pro-conservationist in character (Naty, 1998). There existed customs that prohibited the indiscriminate cutting of trees and killing of wild animals in the society. One of the ways to limit the over-exploitation of plants and animals was by imposing some restrictions on their use. The society had several kinds of such restrictions. One mechanism was to permit members of the society to cut trees or kill animals only during certain seasons of the year. For example, individuals cannot kill animals such as gazelles, rabbits, etc. during the rainy season, which is roughly between June and September. The rationale for this prohibition is that these animals mate and breed during the rainy season. Likewise, members of the society are not allowed to cut trees during the rainy season due to the belief that trees grow during this period.

The selective method of utilisation of flora or fauna is another way by which the society curbed the excessive use of natural resources. For instance, if a person comes across two antelopes or gazelles fighting and they cannot run away because their horns are entangled, the individual is supposed to kill only one of them. If one of them is a female, the person has to kill only the male. The female should not be killed. The reason is that the society believes that female animals are crucial for the reproduction of the species. If both of them are female, then the person has to kill the older. The rationale is that the younger animal is more fecund. The female-centred nature of the Kunama society has shaped their attitudes towards female animals.

There were customs that encouraged the protection of the whole ecological system. Members of the society are prohibited from cutting trees from certain places. The way this is done is by designating the area as a sacred ritual place. Such places are known as *tarba* among the Kunama. There could be temporary or permanent sacred places. People are not allowed to cut trees for the period between the rainy and the harvest season from the temporary sacred places. Indeed, individuals are not allowed to pass by these places during this period. According to the Kunama, entering such places is believed to bring about certain misfortunes to the individuals. Fear of such misfortunes resulted in the observance of the rule. Many localities in the region used to have such sacred places. Thus, a considerable area was covered by vegetation as a result of such a cultural practice.

Putting of curse, which is known as *kosa* or *koshoda* in Kunama is another way by which the society protected the over-utilisation of the environment. There is a clan whose members (usually the legitimate senior one) are responsible for prohibiting members of the society to cut trees by putting a curse on them. The curse goes like this: 'if you climb a tree and cut its branches, I curse that you fall down from the tree and break your legs and ribs.' The curse of elders is traditionally very much feared in the society. Therefore, individuals often refrained from cutting trees when such curses are put. Such curses are not that effective nowadays in the society as a recent event has shown. Recently in one of the villages, an elder put a curse prohibiting young men from engaging in gold mining. The young men in the village continued to extract the gold. One day it happened that one young man fall down into a hole and died. Although elders in the village interpreted the death in terms of the curse, the young men still continued to engage in the mining.

Like many African societies in the past (Tisdell, 1990; Wagner, 1996), the Kunama society was in a symbiotic relationship with its environment. The depletion of plants and animals in the area has been attributed to the failure of certain clans in the society to perform rituals for the well being of the flora and fauna. The Kunama believe that like human beings, the well being of animals and plants require the performance of certain rituals. The scarcity of water in the region has been associated to the failure of the rainmakers to make the required rituals that would bring rain. Elderly informants have reported also the failure of the members of the communities to respect the clans whose members are responsible for making rain or safeguarding plants and animals. In sum the traditional attitudes of the Kunama towards their environment shares common features not only with African communities, but also with Oriental societies. Recent studies (Wichiencharoen, 1993; Watanabe, 1993; Palmer, 1990) have reported the distinct philosophical values of Oriental religious and cultural traditions towards nature. Thus, Oriental as well as traditional African societies share an ethic of environment that places respect for nature. These traditions have disintegrated as a result of the effects of modernisation and the conversion of the Kunama to Christianity. Consequently, there has been a tendency among the younger generation to lack interest in the customs.

In the opinion of elders, the deterioration of the environment has to do with the disintegration of the traditional Kunama customs. The observance of the pro-conservationist values by members of the society in the past did not lead to over-exploitation of the natural resources. The lesser population density in the area also may have contributed to a balanced or under utilisation of the resources. The erosion of the customary practices encouraged individuals to utilise their resources without any consideration of the norms and values of the society. As many informants have pointed out, nowadays individuals do not respect the old institutions and values. Their violation resulted in an indiscriminate utilisation of natural resources. Thus, at present the traditional customs cannot be enforced by the society. Not only that the society can no longer enforce the traditional practices, but also the society is not in control of its environment. The settlement of communities from other parts of Eritrea makes it difficult for the local populations to enforce their tradition. The migrants come with their customs. Their practices have historically evolved in response to the environmental problems that the societies had encountered in highland Eritrea. Lacking some of the pro-conservationist cultures that I have reported for the Kunama, the migrants indulge in excessive exploitation of the environment.

The narrative on the environment among the Kunama presented in the above emphasises the importance of traditional institutions and values for addressing environmental problems. The need to involve societies in the management of their resources has been recently pointed out by researchers (Blaikie and Brookfield, 1987; Brown, 1981; Franke and Chasin, 1980; Eckholm, 1976). However, as some studies have indicated, the approach poses some difficulties in multi-ethnic societies (Drijver and *et al.*, 1995; de Haan, 1995). It may not function in multi-ethnic situations because of competing and conflicting traditions. In the case of Eritrea, it has been reported (Kibreab, 1996:186) that resource management systems that evolved in response to the environmental conditions in highland Eritrea may have negative consequences on the resource use in the lowlands. In my view, villages that are

settled by a single ethnic group would be more suited for implementing such a strategy.

## ENVIRONMENTAL AND SOCIETAL CONSEQUENCES

The environmental and societal consequences of all the above-mentioned factors are worth examining. The settlements of returnees, ex-combatants and populations from the degraded areas of highland Eritrea accompanied the clearing of woodland for farming and housing. With the increasing settlements, the demand for firewood and charcoal has increased thus contributing to further cutting of trees. The felling of trees for fuel and charcoal increases especially during drought periods. This is because local communities have to sell firewood and charcoal to generate some money in order to purchase the necessary items for their subsistence. During drought periods, pastoral communities also cut branches of trees to feed their animals.

The cutting of trees has resulted in the scarcity of firewood in the area. Most of the female informants have pointed out that they had to travel long distances in order to collect fuelwood. They spend longer hours in the collection of fuelwood. The male informants also complained that nowadays it is difficult for them to find wood for house construction. They have to walk long distances to find such woods. The increasing scarcity of wood may force the local populations to adopt new ways for building their houses. It is possible that they use stones as it has been done in highland Eritrea. Constructing houses with stones in highland Eritrea probably was a response to the scarcity of wood in the region.

The Ministry of Agriculture in Eritrea has been in charge of protecting endangered trees such as the doum palm and baobab. The local societies do not use both of these trees for fuelwood. They use different kinds of acacia trees for firewood. Unless other alternatives are available for fuel or construction, the government cannot succeed in prohibiting the cutting of trees for house building for the simple reason that wood is a necessity for the local populations.

Although the Ministry of Agriculture has prohibited the cutting of trees, there are individuals with licenses to sell fuelwood. These individuals bring firewood from the Gash-Setit region to the people in urban areas of highland Eritrea. The demand for fuelwood has been high in the area since a substantial number of households have no access to other sources of energy for cooking. Besides, many women who live in the towns in the Gash-Setit region consume a lot of firewood for brewing local liquor known as *araga* in Kunama.

The demand for firewood is very high in the area because of the existence of lime and brick kilns. Most of these kilns are located in places along the Gash river. The demobilised ex-fighters own some of these kilns. These kilns use a great deal of fuelwood for making lime and bricks. It is estimated (Ministry of Agriculture, 1994) that the kilns consume from 518,400-770,600 quintals of fuelwood per year. During the course of the fieldwork, I had the opportunity to visit one of these kilns and the amount of wood that was piled for use in the kiln was beyond my imagination. The kilns will continue to depend on wood in the future unless alternative sources of energy are provided.



The drying out of the water sources because of droughts has consequences for the communities in the region. As mentioned earlier, women informants have reported that there has been a scarcity of water. They had to get up early in the morning to go to the river. They spend the whole day in the river and come home in the late afternoon with some water. Sometimes they come to their homes without water even after waiting for so long time. Recently, the government with the assistance of some NGOs has drilled wells in some villages. However, in some localities even these wells do not supply with sufficient water to the populations presumably because of shortage of underground water. The environmental crisis that is manifested in the drying out of water sources has to do both with the periodic droughts and a possible increase in human and animal population. There has been an increase in livestock population in the country from 1928 to 1994. (See the table in appendix-7). As indicated, many parts of Eritrea including the Gash-Setit area have experienced droughts in the 1970s and 1980s. These droughts and the increasing human and animal population may have drained the amount of water in the underground.

The promotion of large-scale commercial farms in the Gash-Setit region has consequences on the environment and the local populations. The plantations along the riverbanks have resulted in the destruction of flora such as the doum palm tree, which as pointed out, its fruit is used as food by the communities during famine times. The cutting of trees has exposed the land to degradation and soil erosion. The clearing of woodland for concessions also has scared away elephants, gazelles, antelopes and other wild animals from the area.

One of the consequences of the plantations for local societies is that fertile lands especially along the riverbanks have been taken away. The development of commercial agriculture has also reduced the size of land that the nomadic pastoral societies depend for grazing their livestock. The establishment of concessions and settlement of populations in the region has resulted in the scarcity of land. These phenomena are likely to result in increased competition over land among the different groups in the area. Such conditions could bring about conflicts among the various societies.

The thirty-year war of liberation in Eritrea has affected the environment in a number of ways. Studies have shown that the Ethiopian troops cleared woodlands for firewood, shelters and trenches. In addition, they have indicated that the air raids of places that were considered to be the hideouts of Eritrean guerrillas have reduced the vegetation cover in the country. At present, it is estimated (Gebremedhin, 1996:87) that only 0.44% of the total land surface in Eritrea has forest cover. The war also has affected the wildlife population. The Gash-Setit region had a considerable population of elephants in the past. The gunshots and the air raids by the Ethiopian military often set fire to the woodlands where wild animals inhabited. As a consequence, many of the wild animals including elephants took refuge to the neighbouring countries. With the cessation of the war in 1991, the elephants have been coming back to the region as recently been reported by the Ministry of Agriculture of the State of Eritrea.

The more recent conflict between Eritrea and Ethiopia also has some consequences on the environment in the area. In the opinion of members of the communities, trees particularly doum palm trees have been cut for making trenches. In this connection,

elders are concerned about the regeneration of the doum palm tree. They have pointed out that it takes a very long period of time for the doum palm tree to regenerate. One would imagine also that the gunshots and air bombardments during the recent war must have scared away animals from the area. Media reports on the recent war tend to make no commentaries about the effect of the war on the environment although the photographic views of the battle scenes show a lot of destruction of it.

## RESPONSE OF THE LOCAL POPULATIONS

The local populations have been concerned about the environmental crisis in the region. They have expressed such concerns through lamentation and resentment. The environmental narrative among the Kunama reflects the awareness of the society of the situation. The discourse also captures the environmental and societal consequences of the problem. The Kunama have been lamenting how their traditional management of the natural resources has collapsed. Elders in the society tend to be more interested in the revival of their traditional management of the environment. The paternalistic attitude of the state however, may not allow them to practically engage in the revival of their institutions and values especially if they interfere in the affairs of the administration. In contrast, juniors appear to be indifferent about the disintegration of the customary practices.

The populations in the region have been resentful of the settlements of populations and the granting of land for concessions. The farming societies such as the Kunama have been resentful because the state or individuals have taken away their lands. Likewise, the pastoral communities such as the Beni-Amer have been resentful because they have lost a great deal of grazing land. For these societies, the free movement of their livestock has been also significantly constrained. Unlike in the past, they cannot graze their livestock on the land across the Setit river because of the recent hostile relations between Eritrea and Ethiopia.

The communities are more concerned about the problems pertaining to their interaction with the settlers. The settlers' condescending and aggressive attitudes towards them have been sources of tensions. The absence of individuals from the local groups in the administration, the police and the court has created communication problems between the populations (particularly the Kunama) and the administration. Most of the government personnel in these institutions are from outside the region. They do not have any command of the other vernacular languages. Although article 4 sub-article 3 of the Eritrean Constitution guarantees the equality of all languages, in practice only Tigrinya and Arabic are used in official government communications. This has been creating some problems in the case of the Kunama that demand translation in their language.

For state-society relations in the region to improve, the administration needs to address the problem of population movements and settlements. The failure of the state to deal with this issue has been neatly captured in the following statement of an elderly man:

Suppose you are a father in a family and you have several children in the household. When these children share a bed to sleep, it is likely that there would be some problems because some might be quarrelsome whereas others may be peaceful. Under such conditions, it is possible that one of the children creates difficulties to others. He/she might hit them. The reaction of the weak children is to cry and report to the father about the situation. If this happens and you as a father do not come to the help of the weak, then you are not a good father or head of the family. This is exactly what has been happening to us. The government has allowed the different people to settle in our area. We have been having some difficulties with the new settlers. The problems that we have been having are related to land. The response of the government to these problems has been disappointing. Our government has reacted in the same way like the father in this example. The government did not come in support of the weak and defenceless.<sup>17</sup>

This metaphorical expression is suggestive of the problems between the local populations and the settlers. The statement also implies the non-aggressive culture of the Kunama.

The Kunama portray themselves as peaceful people. In the above quotation, they are symbolised by the “weak and peaceful child” who needs paternal and maternal help. There may be some grain of truth in such a characterisation. Indeed, it seems that at times their non-aggressive culture is taken advantage. There is a saying among the settlers, which reflects such behaviour of the Kunama. The saying goes “Kunama would leave their land if outsiders encroach upon them.” This is a typical expression that the settlers would express reflecting their own intrusion and aggressive culture on the one hand, and the retreat of the Kunama people on the other hand. Their movement from highland Eritrea to the present location has been explained in terms of this behaviour. The Kunama being one of the indigenous inhabitants of Eritrea, are said to have inhabited the highland regions in the distant past. Future archaeological research in highland Eritrea may shed some light on the historical settlement patterns in this part of the country.

There has been a tendency on the part of the administration and the settler community in general to misunderstand the local communities such as the Kunama people. Their anxieties have been misconstrued as a reflection of previous hostile relations with the Eritrean liberation fronts and hence the present government of Eritrea. Such attitudes have become a way of silencing them. Failure to address these problems could lead to violent forms of reaction in the future.

Studies have shown that ethnic conflicts take an evolutionary path manifesting themselves in different stages. Recently (Le Vine, 1997) has identified three phases in the evolution of ethnic conflicts. His analysis is worth considering in the context of inter-ethnic relations in the Gash-Setit area. Although there have not been any large-scale conflicts, the ethnic relations in the region represent a potentially conflictual scenario. Moreover, the exploitation of these problems by external forces (for example, neighbouring countries) could lead to a more explosive situation.

There have been some incidents in the region that is worth looking at for their impact on inter-ethnic and ethnic-state interactions. The Shambakko incident is one of them. Shambakko is a village, which is located between Boshoka and Bimbilna. Since independence it has functioned as an important market place. In March, 1995 two Kunamas (they are brothers) from the village of Taikanaba were shot dead by a Tigrinnya policeman in the market. Apparently, a Tigrinnya woman reported that these individuals did not want to sell their sorghum to her. They refused to sell the sorghum for a price that they thought was low. In the end, they decided to load the sorghum on their camel and leave for their village. However, the policeman prevented them from going. To make a long story short, this situation led to a fight, which resulted in the death of the two brothers. The incident was a concern of great magnitude to the Kunama people. The administration inquired about the incident. A committee was formed to investigate it. All this was done behind the curtains. There was no report of the incident in the mass media. Although the families of the deceased brothers preferred the application of the Law of Hammurabi (i.e. an eye for an eye) as a solution, the government pressured them to accept compensation. The Shambakko incident has alienated the Kunama. The symbolic significance of the incident, which the administration failed to comprehend was that the two deceased brothers are from Taikanaba, the ELF killed from the same village a man named Frut Talla in the 1960s. Thus from the point of view of the Kunama, the Shambakko incident was a symbolic reminder of the historical relations between the Eritrean liberation fronts and them.

The Shambakko incident reflects problems both at inter-ethnic and ethnic-state levels. In a way it is a reflection of the ill-adaptation of the state in Eritrea to ethnicity and ethnic diversity. The ill adaptation of the state to ethnic heterogeneity is a characteristic feature of states in most African countries. In a recent study (Markakis, 1998) has suggested of the need for the states in the Horn of Africa to pay more attention to ethnic pluralism. The state in the countries of the Horn of Africa including Eritrea has been shaped after the West European nation-state model, which aims at cultural and linguistic homogenisation. As Markakis correctly pointed out, the model has been adopted as a way of promoting national integration. The overall consequence is that the states tend to adopt homogenising and assimilationist policies regardless of the cultural and linguistic diversity. Markakis has proposed a restructuring of the state so as to recognise ethnic diversity:

A new type of state will have to evolve, and its design will have to conform to local conditions and the limitations they impose. Decentralisation... should be a key feature of future state. With effective decentralisation, cultural pluralism should prevail and ethnic groups should be able to assert their identities (Markakis, 1998:186).

There are two problems that one envisions concerning the recognition of ethnicity in the case of Eritrea. First, the Eritrean government has excessively shied away from ethnicity because of its bad experience during the liberation struggle period. This would discourage any discourse on ethnicity. The State of Eritrea has not been encouraging ethnicity except in the form of cultural dances and mother tongue education at primary school level. Ethnic-based organisations such as for example, the Ethiopian ethnic federalism, which may be appealing to ethnic groups like the

Kunama or the Afar in Eritrea, are discounted at face value. Second, for policy makers in Eritrea, global trends especially after the end of the cold war have reinforced their previous attitudes towards ethnicity. Therefore, one cannot imagine the restructuring of the state in Eritrea without the influence of these experiences.

## POLICY ISSUES

This study briefly discusses some policy issues. The complexity of the problem requires a concerted effort of several government ministries for tackling the problem. The issues concern some ministries more than others. These ministries include the Ministry of Local Government, Ministry of Agriculture, Ministry of Justice, Ministry of Land, Water and Environment, and Ministry of Energy, among others. This discussion on policy issues also can benefit the non-government organisations that have been working or will be working in the area.

One of the issues that require policy debate is the population movements and settlements. The state needs to regulate the population movements. I have pointed out (Naty, 1998:35) that the regulation should not violate the rights of free movement of citizens within the country. Article 19 sub-article 8 states that every Eritrean has the right to move from one area into another. Therefore, the regulation of movements must not contradict with this provision. The policy makers in the concerned government ministries need to work out flexible mechanisms of population regulation. I have the impression that revising the Land Proclamation No.58/1994 on the basis of a consideration of the traditions of the various communities somehow without perpetuating gender and other inequalities can open avenues for addressing the problem.

The local populations have resented the settlement of returnees in the region. Neither the State of Eritrea nor the international organisations has paid much attention to these resentments of the communities. This is compounded by the absence of individuals or groups who engage in advocacy work for the local populations. Recently, there have been studies on the repatriation of refugees in different African countries (Allen and Morsink, 1994; Adelman and Sorenson, 1994). Some of these reports have urged policy makers to execute the repatriation of refugees with a sense of sensitivity to local cultures and traditions (Ranger, 1994). For example, Terence Ranger has reported that in Zimbabwe, the resettlement of returnees clashed with the traditional land tenure systems. The settlement of returnees in the Gash-Setit region likewise clashes with the customary land entitlement rights of the local communities.

That the Gash-Barka region is a breadbasket of the country has been already pointed out. As the table in appendix-8 shows, the estimated crop production of the region in 1992 was about 113, 404 tons, which is about 33% of the total crop production of the country (Gebremedhin, 1996:102). In 1993, the district produced about 22, 890 tons of crops, which is 23.3% of the total crop production in Eritrea (Gebremedhin, 1996:102). The table in appendix-9 indicates that in 1997 the Gash-Barka zone produced about 480,736 quintals of crops from an area of 183,752 hectares. This was the highest compared to the amount of production in other zones. The annual crop production of the area exceeded all other administrative zones for the year 1997, 1998 and 1999. The total area cultivated in the region also increased from 183,752 hectares

in 1997 to 220,382 hectares in 1998. The total area that was under cultivation in 1999 was slightly less than that of in 1998. This could be due to the effect of the border conflict between Eritrea and Ethiopia, which affected farming communities in areas around Badumma.

The Gash-Setit region is the breadbasket of Eritrea mainly due to two factors: the availability of cultivable land and the fertility of the land. The productive capacity of the region depends on these two factors. The excessive settlement of people in the Gash-Setit region can be destructive to the productive capability of the area. This means that any threat to one of these factors would detrimentally affect the productivity of the area. The settlement of returnees and people from other parts of the country in the area would significantly reduce the amount of land that can be put for cultivation. This would affect the productivity of the region. In my view, an alternative to all this is for the government to use the land mainly for a limited number of large-scale agriculture for producing food and cash crops such as cotton and sesame. This limited number of farms properly managed can produce the required food crops without affecting the production capacity of the area. If the productive capacity of the breadbasket region is negatively affected, then there could be a serious food security problem in the country. The depletion in the production capacity could revive the old argument that Eritrea is not food self-sufficient or economically viable. Therefore, in order to avoid possible food insecurity, the Eritrean government must take some measures that ensure the productive capacity of the region. One possible way to address the settlement issue would be to settle the returnees in the different administrative zones on the basis of the availability of land and employment opportunities. This requires some feasibility studies in each of the regions. The settlement of returnees in the various zones would resolve the settlement-induced resentments of the local populations in the Gash-Setit area.

The local communities are also concerned about their relations with recently displaced segment of the society. These populations are temporarily settled in villages such as Koitabia, Tolegamaja and Delle. Already there have been some tensions between the Kunama and the displaced settler populations in these villages. Moreover, the indigenous societies are worried about the condescending and aggressive behaviour of these populations. As I am writing this paper, the UN peace keeping forces are headed to Eritrea. The mandate of the UN mission is to settle the conflict between Eritrea and Ethiopia through an eventual demarcation of the border between the two countries. One would imagine that the internally displaced people would return to their previous villages assuming that the delimitation locates Badumma within Eritrea. If not, then one important question to raise is where will these communities go? Their permanent settlement in the above-mentioned localities would create increased land shortage and environmental degradation in the region.

The Balkan-like demographic configuration of the region should not be taken lightly. By the phrase Balkan-like, I refer to the settlement of populations from different ethno-linguistic and cultural groups in the area. As stated earlier in this paper, such a situation is conflictual in its nature. Historical animosities among the various communities could explode at any given point in time in the future. The Shambakko incident that I have mentioned earlier should serve as a reminder. Some individuals think that these hostilities are transcended during the thirty years of liberation struggle. There may be some truth in this statement, but I also think that there are

some new problems that if not rectified promptly would affect the nation-building process in Eritrea.

The mere settlement of different ethnic groups in a region does not result in conflicts. There are peaceful cases of multi-ethnic settlements in many parts of the world. What lead to conflicts in plural societies such as the Balkan is the conflicting interests of the various segments of the society and the difficulty to reconcile such opposing interests. Many factors contribute to conflict in multi-ethnic situations. These factors include differential access to economic opportunities and power, social injustice, historical animosity, among others. Some of these factors do exist in the Gash-Setit region. The absence of individuals from some of the local populations in the administration, the police and the court is a reflection of lack of access to power. Similarly, the Shambakko incident that is reported in this paper, is a manifestation of the working of differential access to power and historical animosity in fomenting conflict. The settlement of returnees and the internally displaced populations is likely to bring about scarcity of land. The scarcity of land would exacerbate the competition over land among the various communities. This competition combined with the malfunctioning of the administration, the police and the court system could lead to tensions and eventual conflicts.

Looking at the settlement and the large-scale agriculture in the Gash-Setit region only from the perspective of the local populations does not do any justice to the State of Eritrea. Considering the issue from the point of view of policy makers can help one to see the magnitude of the problem that confronts the state. The policy makers do not have a wide range of options for addressing the problems. It should be noted that the state is responsible to resettle the returnees. Failing to do so would also result in the alienation of the returnees. Although, the establishment of large-scale farms in the area is destructive to the environment, one also understands that land, which is conducive to agriculture, must be cultivated in order to produce food for the populations in the country. Providing some benefits (such as for example, giving priority for employment in the farms and development projects) to the local people by the government or the farm owners could contribute to ease the resentments of the local societies. The incentives also could improve the economic position of the local communities. Such an approach may require some decentralisation in the administration so that there could be different regional policies tackling the specific issues of the zone. A consideration of all these issues in the policy making would help to minimise some of the problems.

The Eritrean government has to address state-society and inter-community problems in order to mitigate tensions and eventual outbreak of conflicts in the region. Monitoring of such problems by the concerned institutions can help to curb the tensions. In connection to this issue, training members from the various communities as administrators, policemen and judges can help overcome the feeling of powerlessness of the local people. Moreover, such an approach can help to transcend the communication problems that prevail between the administration and the societies.

The state has to introduce alternative sources of energy use for the people in urban centres as well as for the populations in the countryside. The experience of other developing countries in tackling this issue must be also taken into account. The

research departments of the Ministry of Energy must engage in research efforts aimed at introducing the alternative sources of energy.

In addressing the environmental problems identified in this study, the government cannot afford to tackle them alone. Dealing with these issues would require a considerable amount of financial and human resources. Therefore, it should seek the assistance of non-government organisations both in terms of finance and expertise. A re-evaluation of its relations with NGOs in the context of past experiences of the country should enable the state to formulate more creative policies. The NGOs also need to display a sense of sensitivity to the concerns of the local communities.

In its attempt to address the environmental problems, the state needs to empower the local communities. This empowerment can help revive the pro-conservationist customs of the societies. The research departments of the Ministry of Agriculture must carry out research among the various societies in the region in order to gather relevant data concerning the traditional management of the environment. The high-modernist ideology of the state might discourage the revival of the pro-conservationist traditional institutions and values. For high modernism believes in the superiority of science over traditional knowledge.

Finally, the tackling of many of the problems discussed in this paper would necessitate a change of some provisions of the Eritrean Constitution. A serious entertainment of these issues would require some amendments of the constitution although it is quite bizarre to talk about amendment while the constitution has not been yet implemented. Article 59 of the constitution has provisions for amendment. Therefore, changing some of the provisions of the constitution should not pose any obstacle.

## CONCLUSION

This study addresses the environmental crisis in the Gash-Setit region of western Eritrea. The study identifies the various factors that have contributed to the situation. These factors include the population settlements, the promotion of large-scale agriculture, war, drought and the disintegration of the traditional customs of the communities. A combined effect of the working of these factors has created environmental stresses in the region. These environmental strains have far-reaching consequences for state-society and inter-community relations in the area.

The local societies have been concerned about the environmental problems in the region. Their narrative on the environment has emphasised on cultural factors as causes of the crisis. Environmental discourse in the area has not been confined to the local communities. The state also has been cognisant of the problem. The fact that both the society and the state have been concerned about the environment raises the issue of the involvement of the populations in the management of their environment. In this paper, I have argued that the high-modernist ideology of the state and the multi-ethnic settlement pattern in the region would not allow the realisation of this important issue. The chances for involving the local communities in the management of the environment would be minimal if customary traditions are not incorporated.



The settlement of people with different ethno-linguistic backgrounds in the region has concerned the local communities. Their anxiety is not something to discount at face value. The condition has resulted in increasing scarcity of land, which contributes to competition over natural resources among the various groups. The residual historical animosities among the communities fuelled by more recent developments in inequality and social injustice could lead to inter-ethnic and ethnic-state tensions in the area.

The local societies also have anxieties regarding the internally displaced populations as a result of the border conflict that broke out in May 1998 between Eritrea and Ethiopia. These communities are provisionally settled in some villages of the local populations. The final fate of these people will be determined after the demarcation of the border. The demarcation of the border in favour of Eritrea may encourage them to go back and settle in the Badumma area. The delimitation of the border in favour of Ethiopia would mean that the internally displaced people would continue to stay in their present villages. This situation would exacerbate the environmental crisis and the inter-ethnic relations in the region.

This paper has raised a number of policy issues not only with respect to the environment, but also state and society related ones. The multi-ethnic settlement of the region has been creating inter-ethnic and ethnic-state problems. Addressing these issues by the policy makers would contribute to a smoother process of nation building in Eritrea. The participation of the local populations in these crucial affairs would be of great importance.

In this paper, I have referred to the role that some provisions of the Land Proclamation No. 58/1994 and the Constitution of Eritrea has played in promoting the settlements and the development of large-scale agriculture. A re-evaluation of some of the provisions in these national documents in light of the problems identified in this paper would open new avenues for addressing not only environmental problems, but also state-society and inter-community issues in the region.

## Notes

<sup>1</sup> This paper is based on data from an on-going research project that has been funded by the Rockefeller Foundation, African Careers Awards. I would like to thank the Rockefeller Foundation for this grant. A visiting research fellowship at the Christian Michelsen Institute of Development Studies and Human Rights in Bergen, Norway has enabled me to write this paper. I would like to thank the Chr. Michelsen Institute for the fellowship. I am particularly grateful to Siegfried Pausewang for reading and commenting on the first draft of this paper.

<sup>2</sup> The names Gash and Setit are misnomers to two rivers in the region. The Kunama (one of the indigenous inhabitants of the region) refer to river Gash and Setit by the name Sona and Tika respectively. Many localities in Kunamaland have been given alien or distorted names. Dokimbia has been named distortedly as Tokumbia. The village of Delle in Aymasa has been called Addi k'eshi. Likewise, the original Kunama name of Badumma (one of the spots of the current Ethio-Eritrean conflict) has been given the distorted name of Badme. In a way, reference to places by non-indigenous names is an indication of the dispossession of indigenous people's culture and identity.

<sup>3</sup> In this regard, it is important to note that the different regimes did not consult the local populations when they were organising or re-organising the administrative units. In my view, this reflects the paternalistic and domineering nature of the regimes.

<sup>4</sup> There have been some enclave settlements of the Saho people in places such as Karkon, Koitabia and Boshoka (in a place called Mai Anbessa) in the late 1950s. The political unrest during the liberation struggle has forced the Saho (who were involved in the ELF) from these Kunama areas into the Sudan as refugees. After independence some of the Saho have come back to settle in Mai Anbessa. The returnee villages such as Fanko, Tabaldia and Alabu also have a significant number of Saho communities. There have been settlements of members of Tigrinnya ethnic group mainly from former Hamasien and Seraye districts. Due to geographical distance, there have not been any settlements of the Tigrinnya people from the former district of Akeleguzai in the Gash-Setit region although it is likely that the recent settlement of demobilised ex-fighters in Alighidir may have some. Similarly, there has not been any settlement of members from the Afar ethnic group in the region.

<sup>5</sup> The matrilineal kinship organisation of the Kunama has attracted the attention of not only European missionaries, travellers, colonial administrators and scholars; but also recent feminist researchers and activists from Europe and North America. For a description of the Kunama social organisation, see (Pollera, 1935; 1913) and (Rossini, 1916), among others.

<sup>6</sup> The history of the relationship between the Kunama people and the Eritrean liberation movements from the point of view of the former has not been written. The writing of such a history would shed some light on the often-misunderstood complexity of their relationship.

<sup>7</sup> The burning of villages such as Karkasha and the killing of community leaders like Frut Talla of Taikanaba and Celestino Adana of Ugummu villages that occurred in the 1960s are cases in point. Because of such mistreatments, the Kunama conceive figures such as Hamid Idris Awate (one of the national heroes of the liberation struggle) not as national heroes, but as bandits who engaged in plundering and looting of the Kunama people.

<sup>8</sup> The complexity of the demographic mix of the Gash-Setit region in a way resembles the situation in the Balkans where populations of diverse ethno-linguistic and cultural backgrounds live in a state of potential tension. One would expect more or less similar tensions in the Gash-Setit region unless the government in Eritrea curbs these population settlements in the area.

<sup>9</sup> The agricultural development policy of the state in Eritrea as embedded in the official documents such as the Macro Policy reflect what (Scott, 1998) referred to as high modernist ideology in his most recent book entitled Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed.

<sup>10</sup> A close examination of the names of villages such as Asiti, Mariti, Shingiliti, Dokimbia, Omelli, Ammeleti, Bimbilna, Karina, Asabaina, Talabia, etc indicate the preponderance of specific plants in the area although at present such plants may not exist. The initial words in the names represent types of certain plants. The suffix *ita* or *iti* stands for habitat. For example, the name Asiti indicates the presence of the baobab tree (*asa*=baobab). The name Mariti is suggestive of the prevalence of a type of acacia tree (*mara*=acacia). Likewise, the name Ammeleti is indicative of the presence of incense tree (*ammela*=incense).

<sup>11</sup> Names of villages or places among the Kunama such as Morketi, Koitabia and Angueti support this oral history. They suggest the prevalence of certain animals in an area. The initial words reflect kinds of animals. The suffix *ita* or *iti* means habitat. For instance, the name Morketi indicates the predominance of lions (*morke*=lions). The name Koitabia is indicative of the presence of leopards (*koita*=leopard; *bia*=water). Similarly, the name Angueti suggests the presence of hyenas

(*angue*=hyenas). In a way, a reconstruction of the flora and fauna of the region may be possible using the place names.

<sup>12</sup>The Italians established the Alighidir Cotton Plantation in 1928. The area around Alighidir was covered mainly by different species of acacia, balanites and ziziphus spina Christi trees before the area was cleared for the plantation. For a detail description of the Alighidir Cotton Plantation Estate, see (Nastasi and Pollera, 1974).

<sup>13</sup>See the Report of the United Nations Commission for Eritrea (General Assembly Official Records:Fifth Session, Supplement No:8 of 1950).

<sup>14</sup>The bulk of peasants in Eritrea is not capitalist farmers. They do not build any premises on their farms. Therefore, the state took their farmlands without giving any compensation because of the absence of such premises.

<sup>15</sup>It is interesting that such a notion has been even reflected in the international media such as the BBC and others when reporting about the influxes of refugees from the Gash-Setit region into the Sudan during the Ethio-Eritrean conflict that occurred in May 2000.

<sup>16</sup> Extract from an interview of Mr. Mustafa Nurhussen on the occasion of the First Gash-Barka Festival.

<sup>17</sup> Interview, February 2000.

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# Summary

This paper examines the relationships between environment, society and the state in the Gash-Setit region, western Eritrea. Through an examination of the environmental narrative of the local communities and the state, the study explores the different factors that have contributed to the environmental crisis in the region. These factors include population settlements, agricultural development policy of the state, war, drought and the disintegration of traditional management of the environment. A combined effect of the working of these factors has created environmental stresses in the Gash-Setit area. The environmental strains have far-reaching consequences for state-society and inter-community relations. The analysis incorporates historical, cultural and political dimensions to the understanding of the relationships between environment, society and the state.